Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Review of the Commission's Part 95 Personal Radio Services Rules	)	WT Docket No. 10-119
	)	
	)	
1998 Biennial Regulatory Review – 47 C.F.R. Part 90 – Private Land Mobile Radio Services	)	WT Docket No. 98-182
	)	RM-9222
	)	
Petition for Rulemaking of Garmin International, Inc.	)	RM-10762
	)	
	)	
Petition for Rulemaking of Omnitronics, L.L.C.	)	RM-10844

To: The Commission

COMMENTS OF THE ACADEMY OF MODEL AERONAUTICS, INC.

The Academy of Model Aeronautics, Inc. ("AMA"), by its counsel, and pursuant to paragraph 78 of the Notice of Proposed Rulemaking and Memorandum Opinion and Order on Reconsideration (FCC 10-106) in this proceeding (the "Notice"), released June 7, 2010, and Sections 1.415 and 1.419 of the Commission's Rules, submits these comments in the above-captioned proceeding.

Interest of the Academy of Model Aeronautics

The AMA is the world's largest model aviation association, representing a membership of more than 150,000 from every walk of life, income level and age group. AMA is a self-supporting, non-profit organization whose purpose is to promote development of model aviation as a recognized sport and worthwhile recreation activity. AMA is an organization open to anyone interested in model aviation. AMA is the official national body for model aviation in the United States. AMA sanctions more than a thousand model competitions throughout the country each

year, and certifies official model flying records on a national and international level. AMA is the organizer of the annual National Aeromodeling Championships, the world's largest model airplane competition. AMA is the chartering organization for more than 2,500 model airplane clubs across the country. AMA offers its chartered clubs official contest sanction, insurance, and assistance in getting and keeping flying sites. AMA is the voice of its membership, providing liaison with the Federal Aviation Administration, the Federal Communications Commission, and other government agencies through its national headquarters in Muncie, Indiana. AMA also works with local governments, zoning boards, and parks departments to promote the interests of local chartered clubs. AMA is an associate member of the National Aeronautic Association. Through NAA, AMA is recognized by the Fédération Aéronautique Internationale (FAI), the world governing body of all aviation activity, as the only organization which may direct U.S. participation in international aeromodeling activities.

As part of its education mission, the AMA operates the National Model Aviation Museum on its headquarters campus in Muncie, Indiana. This 25,000 square foot facility houses the largest collection of model aircraft in the United States and contains documents and artifacts that chronicle the history and importance of aeromodeling to aviation.

The AMA will focus its comments on the Radio Control (R/C) Radio Service. The R/C Service, regulated under Part 95, Subpart C, of the Commission's Rules, is a communications service that provides radio frequencies for the remote control of devices. The AMA is interested in the channels in the 27 MHz band that may be used to operate a model aircraft device and other devices and especially interested in the 50 channels in the 72 MHz band that are set aside in present Section 95.207(a)(2) and proposed Section 95.203 of the Commission's Rules *exclusively* for the control of model aircraft devices.

Comments

This proceeding is intended to update and reorganize Part 95 of the Commission's Rules, which, over the years, has grown to encompass eleven Personal Radio Services. The R/C Radio Service is one of the oldest Personal Radio Services, having been established in 1949.

In addition to consolidating redundant provisions of the rules for the various Personal Radio Services into Subpart A – General Information, and Subpart B – Technical Information, the Commission is also seeking to update certain technical requirements to comport with advances in technology and manufacturing processes that have occurred since the older rules were adopted.

a. Continuous Signal

In the case of the R/C rules, the Commission asks[1] whether the present Section 95.215(b), which generally prohibits a continuous signal of more than three minutes, should be amended to limit transmissions to the minimum practical time. Nonetheless, the Commission asks whether some outside time limit should be stated in order to guard against some unforeseen application that would continuously use the channel. There is no proposed replacement in the new Part 95 for the entire existing Section 95.215.

The AMA supports the removal of Section 95.215. The AMA believes that in light of current R/C operational practice, this rule is no longer required.

b. Frequency Tolerance

The Commission proposes[2] with respect to all of the Personal Radio Services to express frequency tolerance[3] requirements in terms of parts per million, instead of percent. The AMA

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[1] Notice, paragraph 58.
[2] Notice, paragraph 14.
[3] Frequency tolerance refers to the allowable amount that the transmit frequency may differ from the assigned frequency as a result of variations in the manufacturing process. Notice, fn 25.

supports this proposal. The Commission goes further, however, and asks whether the objective of maintaining on-frequency operation could be better achieved by requiring manufacturers to ensure frequency stability[4] rather than meet standards for frequency tolerance. In this regard, AMA notes that on-frequency operation has been adequately maintained using the existing frequency tolerance criteria method. Requiring manufacturers to "ensure frequency stability" is not necessary.

In the case of the R/C Radio Service, the Commission asks whether the current frequency tolerance requirements are still appropriate, although no changes in frequency tolerances are proposed. Present Section 95.623(b) of the Commission's Rules and proposed Section 95.37(b) specify frequency tolerances as follows:

Transmitter Type	**Frequency Tolerance Old §95.623(b)**	**Frequency Tolerance New §95.37(b)**
27 MHz band, transmit power 2.5 watts or less, used only to turn device on or off	0.01%	100 ppm
Other 27 MHz band transmitters	0.005%	50 ppm[5]
72 and 76 MHz band transmitters marketed prior to 1993	0. 005%	50 ppm
72 and 76 MHz band transmitters marketed after 1993	0.002%	20 ppm

[4] Frequency stability refers to maximum amount that the transmit frequency may change as a result of changes in the ambient temperature and/or power supply voltage. Notice, fn 25.

[5] Proposed rule 95.37(b)(2) recites a frequency tolerance of "5 parts-per-million." This appears to be a typographical error. The frequency tolerance should recite "50 parts-per-million."

The AMA notes that 50 ppm equipment is no longer in use at AMA-sanctioned events. The rule grandfathering the use of this equipment can be removed. In all other respects, however, the frequency tolerance requirements stated in the present and proposed rules are still valid and appropriate.

c. Crystal control

The Commission notes[6] that present Section 95.651 of the Commission's Rules requires that transmitters in the Personal Radio Services must be crystal controlled. The Commission notes further[7], however, that today's personal radio transmitters use a digital frequency synthesizer which ensures that transmitted signals are stable and accurate and that synthesizer-based radios satisfy the crystal control requirement. The Commission inquires whether the rule should be retained and, if so, whether the rule should be amended to state that crystal-based frequency synthesizers satisfy the requirement.

There is no proposed replacement for Section 95.651 in the Commission's revised rules. The AMA believes, however, that the better approach would be to retain the rule, revised to note that crystal-based frequency synthesizers satisfy the requirement. In this way, no manufacturer would interpret the removal of the rule to mean that crystal-quality signal stability and accuracy are no longer required.

d. Power Limits

The Commission does not propose any changes in the power limits applicable to the R/C Radio Service, but the Commission inquires generally[8] whether the power limits and measurement techniques continue to be appropriate for the R/C Radio Service. Present Section

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[6] Notice at paragraph 21.
[7] Notice at paragraph 22.
[8] Notice, paragraph 16.

95.639(b) of the Commission's Rules and proposed Section 95.35(c) specify the following power maximums for transmitters in the R/C Radio Service:

Transmitter Type	Maximum Power
27 MHz band, except frequency 27.255 MHz	4 watts
Transmitter on frequency 27.255 MHz	25 watts
72 -76 MHz bands	.75 watts

The AMA believes that the present and proposed power limits remain appropriate and no changes are warranted.

e. Servicing an R/C Transmitter

The Commission has proposed to remove and not replace existing Section 95.221 of the Rules that sets forth the requirements and procedures that must be observed when servicing, adjusting and maintaining an R/C transmitter. Subsections (b) and (c) of that rule, dealing with personnel authorized to perform internal maintenance and repair functions, is now contained in proposed Section 95.33(f)(2)(ii) of the rule governing Equipment Certification Requirements. However, some features of subsections (a) and (d) of the existing rule, dealing with user responsibilities, especially with regard to transmitters that operate in the 26 and 27 MHz bands, continue to be required. The AMA urges the Commission to adopt a new section of proposed Subpart D of the revised rules, based on certain existing text of existing Section 95.221, as follows:

§95.2XX Servicing an R/C Transmitter

(a) You may adjust an antenna to your R/C transmitter and you may replace a damaged, non-integral, antenna, so long as the replacement antenna does not increase the gain or otherwise alter the operating characteristics of the transmitter.
(b) You may replace batteries in the transmitter with the type of battery specified by the manufacturer and following the battery replacement instructions contained in the user's instruction manual.
(c) You are responsible for the proper operation of the station at all times and are expected to provide for observations, servicing and maintenance as often as may be necessary to ensure proper operation.
(d) Brief signals (signals not longer than one minute during any five minute period) using a radiating antenna may be transmitted in order to carry out equipment tests.

With respect to proposed subsection (a), above, the AMA notes that Section 15.203 of the Commission's rules, governing intentional radiators, states that "[t]he manufacturer may design the unit so that a broken antenna can be replaced by the user..." To further address the battery installation and replacement matters, addressed in subsection (b), above, AMA recommends that proposed rule 95.33(f)2)(i), concerning the required contents of instruction manuals, be expanded to specifically include "battery installation and replacement."

f. Pay for Use

The Commission has proposed to eliminate existing Section 95.213, which prohibits payment for transmitting with an R/C station. The AMA opposes the removal of this section and prohibition and urges the Commission to retain the prohibition in the new Part 95. Operation of model aircraft devices is essentially a recreational activity and the AMA seeks to preserve this nature of the activity. However, new commercial uses of R/C aircraft are emerging, which threaten to overwhelm the recreational nature of the activity. The prohibition on remuneration for transmitting with an R/C station is vital to preserving the traditional recreational nature of model aircraft operation. Radio remote control of models for commercial purposes belongs in the Private Land Mobile Radio Services (Part 90 of the FCC Rules), where Section 90.257(c)

authorizes such operation in the band 72-76 MHz, on frequencies that are different from the frequencies authorized for the R/C Personal Radio Service.

g. Plain Language Format

The Commission notes[9] that the current rules for the R/C Radio Service are written in a plain-language, question-and-answer format and inquires whether this format should be maintained. The proposed new Subpart D, containing the rules specific to the R/C Radio Service, has, in fact, been converted to a non-question-and-answer format. The subpart continues the use of personal pronouns and is straightforward and easy to understand. The AMA supports adoption of new Subpart D in this format.

h. Definitions

The AMA notes that the proposed definition of *R/C Transmitter* in proposed Section 95.3 is not complete. The definition should read: "A transmitter that operates or is intended to operate at a station authorized in the R/C Radio Service."

Conclusion

The AMA generally welcomes and supports the Commission's effort to consolidate and update Part 95 of its Rules, especially the rules for the R/C Radio Service. The AMA has discussed herein eight of the Commission's proposals that the AMA supports, opposes or believes could be improved. The AMA urges the Commission to accept the AMA's positions for the betterment of the aeromodeling regulatory regime.

[9] Notice, paragraph 11.

Respectfully submitted,

THE ACADEMY OF MODEL AERONAUTICS, INC.

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